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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,222

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EXAMINER

GOLUB, MARCIA A

ART UNIT

PAPER NUMBER

2828

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DELIVERY MODE

06/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,222	Applicant(s) VARNHAM ET AL.	
	Examiner MARCIA A. GOLUB	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-35,38-41,44,47-51,53 and 56-71 is/are pending in the application.
- 4a) Of the above claim(s) 33-35,38-41,44,47-51,53,56-62,64-67 and 69-71 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 63 and 68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/27/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Figs 7 and 11, multimode optical fiber and means to change the wavelength is the source of optical radiation in the reply filed on 5/12/08 is acknowledged. The traversal is on the ground(s) that there are too many species identified by the examiner. This is not found persuasive because the applicant did not state on the record that the species are obvious variants of each other.

The applicant indicated that claim 67 reads on the elected species, this is inconsistent with applicant's discussion of claim 67, it is assumed that the applicant meant to elect claim 68, which matches the selected embodiment. Also, claim 68 depends on claim 63. Therefore claims 63 and 68 are being examined on the merits.

The requirement is still deemed proper and is therefore made FINAL.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Fig 11 does not show fibers 20 and 30. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 63 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicant have added a new limitation "first optical fiber is multi-mode", this is inconsistent with the specification which discloses the second optical fiber to be multi-mode. Also, this is inconsistent with the general teaching of the art, since it is well known that the output fiber (1st fiber) should be single-mode. For the purposes of compact prosecution the examiner shall interpret the claim limitation as "second optical fiber is multi-mode"

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 63 and 68 are rejected under 35 U.S.C. 102(b) as being anticipated by Grubb (5,530,710) hereinafter '710.

Fig 1 of '710 discloses an apparatus for providing optical radiation comprising:

63. "a pump source [18] and at least one first amplifying waveguide [16],
wherein the pump source comprises a plurality of laser diodes [20] and least one second amplifying waveguide [24, 38];
the plurality of laser diodes are configured to pump [808 nm] the second amplifying waveguide [24,38] to provide pump radiation [980 nm];
the apparatus being such that the first amplifying waveguide [16] emits the optical radiation [1500 nm] when pumped by the pump radiation [980 nm];
and wherein the first amplifying waveguide [16] comprises a first optical fibre [12];
the first optical fibre [12] comprises a region comprising a first rare-earth dopant [Er];
and wherein: the second amplifying waveguide [24, 38] comprises a second

optical fibre [Figs. 2, 3];

the second optical fibre is a multi-mode optical fibre and comprises a region comprising a second rare-earth dopant [Nd];

and the pump radiation is defined by a wavelength,

the apparatus further comprising a means to change the wavelength of the pump radiation between a first wavelength [980 nm] and a second wavelength [940 nm],

and wherein the optical radiation emitted by the first waveguide [1500 nm] has a higher brightness when the second waveguide emits the pump radiation at the first wavelength than when the second waveguide emits the pump radiation at the second wavelength.” (Er doped fiber produces more output when pumped at 980 nm than at 940 nm)

68. “wherein: the apparatus is in the form of a master oscillator power amplifier, (the apparatus includes pump laser, seed laser and amplifier)

and the means to change the wavelength of the pump radiation emitted by the second amplifying waveguide comprises a source of optical radiation.” (the wavelength emitted by the laser array is shifted from 808 to 940 by the 1st fiber [24] and is then shifted from 940 to 980 by the 2nd fiber [38])

Contact Info

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARCIA A. GOLUB whose telephone number is (571)272-8602. The examiner can normally be reached on M-F 9-6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Marcia A. Golub/
Assistant Examiner

Art Unit 2828

/Minsun Harvey/

Supervisory Patent Examiner, Art Unit 2828